



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/857,859	09/19/2007	Oscar Bustos	56.1031	1676

27452 7590 10/21/2013
SCHLUMBERGER TECHNOLOGY CORPORATION
10001 Richmond Avenue
IP Administration Center of Excellence
Houston, TX 77042

EXAMINER

DITRANI, ANGELA M

ART UNIT	PAPER NUMBER
----------	--------------

3674

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

10/21/2013

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USDocketing@slb.com
jalverson@slb.com
kzeno@slb.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OSCAR BUSTOS and CURTIS L. BONEY

Appeal 2011-009690
Application 11/857,859
Technology Center 3600

Before STEFAN STAICOVICI, MICHAEL C. ASTORINO, and
GEORGE R. HOSKINS, *Administrative Patent Judges*.

HOSKINS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Oscar Bustos and Curtis L. Boney (“Appellants”) appeal under 35 U.S.C. § 134 from the Examiner’s decision rejecting claims 1-4 and 6-21. We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

Claim 1, reproduced below, represents the subject matter on appeal:

1. A method of fluid diversion in a well, comprising:
 - (a) treating a first zone in a well;
 - (b) conveying a bailer into the well, the bailer carrying a composition comprising fibers; and
 - (c) activating the bailer to deploy the composition to form a degradable fiber based plug and at least partially plug the first zone;wherein the fibers of the composition are selected from the group consisting of degradable fibers and fibers comprising a degradable portion and a non-degradable portion.

REJECTIONS

Appellants request our review of the following rejections (*see* App. Br. 10).

Claims 1, 2, 8-11, and 21 are rejected under 35 U.S.C. § 103(a) as unpatentable over Goodwin (US 2,788,072, issued Apr. 9, 1957) in view of Willberg (US 2006/0113077 A1, published Jun. 1, 2006).

Claims 3 and 4 are rejected as unpatentable over Goodwin in view of Willberg, and further in view of Clark (US 2,838,117, issued June 10, 1958).

Claims 6, 16, and 18-20 are rejected as unpatentable over Goodwin in view of Willberg, and further in view of Bohn (US 3,379,251, issued Apr. 23, 1968).

Claim 7 is rejected as unpatentable over Goodwin in view of Willberg, and further in view of Graham (US 3,170,517, issued Feb. 23, 1965).

Claim 12 is rejected as unpatentable over Goodwin in view of Willberg, Clark and Bohn.

Claims 13 and 15 are rejected as unpatentable over Goodwin in view of Willberg, Clark, and Graham.

Claim 14 is rejected as unpatentable over Goodwin in view of Willberg, Clark, Graham, and Bohn.

Claim 17 is rejected as unpatentable over Goodwin in view of Willberg, Bohn and Graham.¹

ANALYSIS

Rejection of Claims 1, 2, 8-11, and 21 As Unpatentable Over Goodwin and Willberg

Appellants have not presented arguments for the patentability of claims 2, 8-11, and 21 apart from claim 1. *See* App. Br. 11; Reply Br. 5-6. Therefore, in accordance with 37 C.F.R. § 41.37(c)(1)(vii) (2010), we select claim 1 as the representative claim to decide the appeal of this rejection, with claims 2, 8-11, and 21 standing or falling with claim 1.

Appellants present several challenges to the Examiner's findings concerning the Goodwin disclosure. First, Appellants assert "*Goodwin* does not describe the combination of treating a first zone in a well and activating the bailer to deploy the composition to form a degradable fiber based plug and at least partially plug the first zone." App. Br. 11; *see also* Reply Br. 5-6. We agree with that assertion, but only in so far as we agree Goodwin does not disclose a "fiber based" plug — which the Examiner acknowledged. *See* Ans. 4. To the extent Appellants challenge Goodwin as failing to disclose the rest of the subject matter set forth in the quotation provided here, the challenge is unpersuasive. That is, we find as the

¹ The Appeal Brief (at pages 10 and 14) identifies claim 17 as rejected over Goodwin, Bohn, and Graham, but the Answer (at page 29) clarifies that Willberg was also included.

Examiner did that Goodwin discloses the combination of treating a first zone in a well (Goodwin, col. 5, ll. 1-40) and activating a bailer to deploy a composition to form a degradable plug and at least partially plug a first zone (Goodwin, col. 1, ll. 38-46; col. 3, ll. 27-58; and col. 5, ll. 41-59). *See* Ans. 3 and 20-21. As to Goodwin's failure to disclose a "fiber based" plug, we consider that issue further below in relation to the combination of Goodwin with Willberg.

Second, Appellants assert, "*Goodwin* describes a composition for use *prior* to fracturing to isolate zones within a well." App. Br. 11. However, claim 1 does not require any specific temporal sequence in performing the "treating" step (a)² and the "conveying" and "activating" steps (b) and (c), respectively. *See* Ans. 21; *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342-43 (Fed. Cir. 2001) ("Unless the steps of a method actually recite an order, the steps are not ordinarily construed to require one."). Therefore, we find Appellants' argument relating to the timing that the Goodwin composition is utilized to be irrelevant to the invention claimed in the present application.

Finally, Appellants further assert, "additional fracturing fluid (or other, additional solvent) is required to remove *Goodwin's* composition." App. Br. 11. However, claim 1 merely requires that the composition is "degradable," a broad term which encompasses using additional fluids such as solvents to degrade the composition. Therefore, we find Appellants'

² Appellants' argument refers to "fracturing", while the claim refers to "treating", but the Specification (¶ 0016) defines "'treating' . . . to encompass all known fracture or stimulation techniques and fluids."

assertion relating to the specifics of how the Goodwin composition is degraded to be irrelevant to the invention claimed in the present application.

For the foregoing reasons, we find each of Appellants' challenges to the Goodwin disclosure to be unpersuasive. Appellants also challenge the Examiner's combination of Goodwin with Willberg. Appellants assert "[e]xplicit analysis to support the combination of *Goodwin* and *Willberg* is not present" and "no specific Examiner supplied analysis or reference to the text of the references or an additional reference properly supports the combination of the references." App. Br. 11; *see also* Reply Br. 5-6. We conclude, however, that the Examiner did indeed provide an explicit analysis which presents a prima facie case of obviousness under 35 U.S.C. § 103(a) and *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). For the sake of clarity, we summarize that prima facie case here.

The Examiner first determined the scope and content of the prior art and ascertained the differences between the prior art and the claims at issue. *See KSR*, 550 U.S. at 406-07. That is, the Examiner found Goodwin discloses each and every limitation of claim 1 except for the deployed temporary sealing composition "comprising fibers selected from the group consisting of degradable fibers and fibers comprising a degradable portion and a non-degradable portion." *See* Ans. 3-4 and 19-22 (including citations to pertinent disclosure in Goodwin). The Examiner also found Willberg discloses a method of well treatment wherein a temporary sealing composition comprises "a degradable material comprising inorganic fibers that dissolve at the appropriate time under encountered well bore conditions . . . in order to form the temporary plugs or bridges." *See* Ans. 4 (citing Willberg ¶¶ 0029-0030).

The Examiner then provided an articulated reasoning with a rational underpinning to support the legal conclusion of obviousness of the subject matter recited in claim 1. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (cited with approval in *KSR*, 550 U.S. at 418). That is, the Examiner concluded:

[I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a composition comprising fibers as taught by Willberg et al. as the temporary sealing composition disclosed by Goodwin in order to form a temporary plug or bridge in the well bore, thereby temporarily blocking a zone within the method of sequentially fracturing different elevations in the well bore such that other operations may be performed within the well without interference from or damage to existing fractures.

Ans. 5; *see also id.* 22-24. As the Court noted in *KSR*, 550 U.S. at 418, a *prima facie* case of unpatentability under 35 U.S.C. § 103 “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.”

For the foregoing reasons, we are not persuaded by Appellants’ challenges to the disclosure of Goodwin, or to the combination of Goodwin and Willberg. We therefore sustain the Examiner’s rejection of claims 1, 2, 8-11, and 21.

*Rejection of Claims 3 and 4
As Unpatentable Over Goodwin, Willberg and Clark*

Appellants have not presented arguments for the patentability of claim 4 apart from claim 3. *See App. Br. 12; Reply Br. 6.* We select claim 3 as

the representative claim to decide the appeal of this rejection, with claim 4 standing or falling with claim 3.

Appellants assert “*Clark* does not resolve the shortcomings of *Goodwin* and *Willberg*” because “*Clark* does not use a fiber in its composition.” App. Br. 12; *see also* Reply Br. 6. However, the Examiner did not rely on *Clark* as disclosing a “fiber.” *See* Ans. 7-8 and 24-25. Thus, Appellants’ argument concerning the failure of *Clark* to disclose the “fiber” recited in claim 3 is inapposite to the rejection made by the Examiner.

Appellants additionally assert the Examiner’s rationale to combine *Goodwin*, *Willberg* and *Clark* “is not effective” because it “does not rely upon specific reference text, explicit analysis, or another reference.” *See* App. Br. 12; Reply Br. 6. This argument attempts to hold the Examiner to the teaching, suggestion, or motivation (“TSM”) standard where there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. However, that standard is not required to be met. *KSR*, 550 U.S. at 415 (“We begin by rejecting [the rigid application of TSM]”). The proper inquiry is whether the Examiner has articulated adequate reasoning based on a rational underpinning to explain why a person of ordinary skill in the art would have been led to combine *Goodwin*, *Willberg* and *Clark*. *Id.* at 418. The Examiner’s stated conclusion regarding obviousness at page 8 of the Answer (“Therefore, it would have been obvious”) satisfies this requirement. Appellants have not come forth with any persuasive evidence or technical reasoning to show that the Examiner’s rationale to combine the teachings of *Goodwin*, *Willberg* and *Clark* lacks rational underpinnings.

For the foregoing reasons, we are not persuaded by Appellants' challenges to the disclosure of Clark, or to the combination of Goodwin, Willberg and Clark. We therefore sustain the Examiner's rejection of claims 3 and 4.

*Rejection of Claims 6, 16, and 18-20
As Unpatentable Over Goodwin, Willberg and Bohn*

Appellants have not presented arguments for the patentability of claims 16 and 18-20 apart from claim 6. *See* App. Br. 12-13; Reply Br. 6. We select claim 6 as the representative claim to decide the appeal of this rejection, with claims 16 and 18-20 standing or falling with claim 6.

Appellants assert Bohn "does not resolve the shortcomings of *Goodwin*" because "*Bohn* does not use a fiber in its composition." App. Br. 12. However, the Examiner did not rely on Bohn as disclosing a "fiber." *See* Ans. 8-9 and 25-26. Thus, Appellants' argument concerning the failure of Bohn to disclose the "fiber" recited in claim 6 is inapposite to the rejection made by the Examiner.

Appellants additionally assert Bohn does not "suggest that its process steps are interchangeable with the other references' process steps", and "[i]n any event, the combination of references is not supported by explicit Examiner analysis or reference to an additional reference." *See* App. Br. 12-13. This argument attempts to hold the Examiner to the TSM standard, *supra*, which is not required to be met. *KSR*, 550 U.S. at 415. The proper inquiry is whether the Examiner has articulated adequate reasoning based on a rational underpinning to explain why a person of ordinary skill in the art would have been led to combine Goodwin, Willberg and Clark. *Id.* at 418. The Examiner's stated conclusion regarding obviousness at page 9 of the

Answer (“Therefore, it would have been obvious . . .”) satisfies that requirement. Appellants have not come forth with any persuasive evidence or technical reasoning to show that the Examiner’s rationale to combine the teachings of Goodwin, Willberg and Bohn lacks rational underpinnings.

For the foregoing reasons, we are not persuaded by Appellants’ challenges to the disclosure of Bohn, or to the combination of Goodwin, Willberg and Bohn. We therefore sustain the Examiner’s rejection of claims 6, 16, and 18-20.

*Rejection of Claim 7
As Unpatentable Over Goodwin, Willberg and Graham*

Appellants assert “*Graham* does not use fibers in its composition.” App. Br. 13-14. However, the Examiner did not rely on *Graham* as disclosing a “fiber.” See Ans. 9-10 and 26-27. Thus, Appellants’ argument concerning the failure of *Graham* to disclose the “fiber” recited in claim 7 is inapposite to the rejection made by the Examiner.

Appellants additionally assert: “The combination of references is not supported by explicit Examiner analysis or reference to an additional reference.” App. Br. 13-14. This argument attempts to hold the Examiner to the TSM standard, *supra*, which is not required to be met. *KSR*, 550 U.S. at 415. The proper inquiry is whether the Examiner has articulated adequate reasoning based on a rational underpinning to explain why a person of ordinary skill in the art would have been led to combine Goodwin, Willberg and Clark. *Id.* at 418. The Examiner’s stated conclusion regarding obviousness at page 10 of the Answer (“Therefore, it would have been obvious . . .”) satisfies that requirement. Appellants have not come forth with any persuasive evidence or technical reasoning to show that the

Examiner's rationale to combine the teachings of Goodwin, Willberg and Graham lacks rational underpinnings.

For the foregoing reasons, we are not persuaded by Appellants' challenges to the disclosure of Graham, or to the combination of Goodwin, Willberg and Graham. We therefore sustain the Examiner's rejection of claim 7.

Rejections of Claims 12-15 and 17

The remaining claims are rejected on various combinations of Goodwin, Willberg, Clark, Bohn and/or Graham. In pressing for the patentability of these claims (*see* App. Br. 13-14), Appellants present the same arguments considered above. We sustain the rejections of claims 12-15 and 17 for the reasons already provided.

DECISION

We AFFIRM the rejections of claims 1-4 and 6-21.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

Klh